

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of)	KOTYUK
)	
Title)	Adjustable Form
)	
Serial Number)	10/773 676
)	
Filing Date)	06 Feb 2004
)	
Art Unit)	1742
)	
Examiner)	Kastler, Scott R.
)	
Attorney Docket No.)	1416 (04-05)

Commissioner for Patents
P.O. Box 1450
Alexandria, VA22313-1450

AFFIDAVIT UNDER 37 C.F.R. 1.132

I, Robert FOSS, hereby swear and state that:

1. I have been active in the field of refractory ceramics, specifically refractories for lining metallurgical vessels, for the last 20 years.
2. I have a degree from Rutgers University – College of Engineering in the field of Ceramics and Materials Science.
3. I am Marketing and Technical Manager – Linings Division for Vesuvius USA Corporation.
4. Vesuvius USA Corporation is a subsidiary of Vesuvius Crucible Company, which has annual sales of more than \$1 billion.
5. I am very familiar with the technical aspects of installing refractory ceramic linings in metallurgical vessels and have participated in countless installation.
6. The present application describes an adjustable form that can be used when placing a lining of a metallurgical vessel.
7. The lining can comprise a castable or dry vibratable refractory ceramic.
8. The adjustable form can be placed in the vessel and its dimensions can be changed in situ to define precisely the lining thickness.

9. The lining material can be placed into the space between the interior walls of the vessel the exterior surface of the adjustable form.
10. US 4,783,061 to LaBate teaches a welded frame onto which precast blocks are attached.
11. LaBate does not permit any adjustment of the form in situ and, in fact, is not adjustable at all once the frame is welded.
12. LaBate is also not concerned with castable or dry vibratable lining material.
13. US 5,484,138 to Soofi describes stretching a fabric around an adjustable form, placing the form in a vessel, and casting a lining in the space between the fabric and the interior wall of the vessel.
14. Soofi must complete all adjustments before placing the form in the vessel and cannot be adjusted in situ.
15. Adjusting the form of Soofi requires unfastening the fabric from the frame, adjusting the frame, and reattaching the fabric to the frame.
16. Expanding the Soofi frame without unfastening the fabric would cause the fabric to tear so that the cast lining would spill into the frame.
17. Shrinking the Soofi frame without unfastening the fabric would cause creases and irregularities in the cast lining, which would later interfere with the flow of molten metal in the vessel.
18. Only the present application describes a form that can be adjusted in situ after being placed in the vessel.
19. In situ adjustment permits very precise control of the conformation of the lining.
20. I hereby declare that all statements made herein of my own knowledge are true, and that all statements made on information and belief are believed to be true; and further, that these statements are made with the knowledge that willful false statements, and the like so made, are punishable by fine or imprisonment, or both, under Section 1001, Title 18 of the United States Code, and that such willful false statements may jeopardize the validity of the application or any patent issuing thereon.



Robert FOSS

Date